

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	6931987
<b>Application Number:</b>	10616659
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	9959
<b>Title of Invention:</b>	Method for determining gene knockouts
<b>First Named Inventor/Applicant Name:</b>	Costas D. Maranas
<b>Customer Number:</b>	27407
<b>Filer:</b>	John Darrell Goodhue/Patricia E. Wilson
<b>Filer Authorized By:</b>	John Darrell Goodhue
<b>Attorney Docket Number:</b>	P06367US03
<b>Receipt Date:</b>	02-FEB-2010
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<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	NPL Documents	Mushegian_A-minimal-gene-set_Proc-Natl-Acad-Sci_1996.pdf	2576878 <small>3ceda36c68b248be0f6eaa702d09ec3a16f25a7d81</small>	no	6

**Warnings:**

**Information:**

2	NPL Documents	Nakamura_Metabolic-engineering_CurrOpinBiotechnol_2003.pdf	1666231 61913a5681a2a3113819d23e5c31f3c0f10308	no	6
<b>Warnings:</b>					
<b>Information:</b>					
3	NPL Documents	OhAndLiao_Gene_Expression_BiotechProg2000.pdf	4632418 87ba199b1715805d8a48d6e6105d97141d0286	no	9
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<b>Information:</b>					
4	NPL Documents	Overbeek_WIT_NucleicAcidsReviews_2000.pdf	646525 6fb7eacbf0725a1e167ba6b1a08221191deAb66	no	3
<b>Warnings:</b>					
<b>Information:</b>					
5	NPL Documents	Palsson_Challenges_NatBiotechnol2000.pdf	1014750 26120220f4278c5d199b26d1dc71f17541cd	no	4
<b>Warnings:</b>					
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6	NPL Documents	73-B-Papoutsakis_Equations-and-calculations-of-product-yield_1985.pdf	4256170 e8e819e1f6d145ced8ba1597d1305bcebdm	no	17
<b>Warnings:</b>					
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7	NPL Documents	73-A-PapoutsakisEquations-and-calculations-for-fermentations.pdf	3921079 759a2d13d4838d55fbc91a082110f4367d05d1	no	14
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8	NPL Documents	74-A-Pennisi_Laboratory-Workhorse-Decoded_Science_1997.pdf	486567 4c8a8d166cde859db567dce473accfa599876	no	3
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9	NPL Documents	Pharkya_Exploring_Overproduction_BiotechnolBioeng2003.pdf	3987127 d7c7e0c4540d310c0d1928f652d1975aa58d5	no	13
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10	NPL Documents	Pharka_OptStrain_GenomeRes2004.pdf	2625170 95ca26562a11bed0512d67d698f7d679c7d1a66	no	11
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11	NPL Documents	Pramanik_Stoichiometric-Model-of-Escherichia-coli.pdf	1752158 f12a8bab5479708c0889918f8dcdf7c18f b777	no	24
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12	NPL Documents	76-Quakenbush_The-power-of-public-access_Nat-Genet_2001.pdf	736923 9d775812205ca6de88ff513c52eff03941f 86a	no	3
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13	NPL Documents	79-Reed_An-Expanded-Genome-scale_GenomeBiol2003.pdf	2490891 770d5cc97c112d69f82561a9f85986d4d 0791	no	12
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14	NPL Documents	80-Richmond_Genome-wide-expression_Nucl-Acids-Res_1999.pdf	3495292 1a7d8b8e4cc31b054040616c56ebccab 6e3c	no	15
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15	NPL Documents	SantaLucia_Unified_View_Proc NatlAcadSci1998.pdf	1804826 716d95d88c788d8130c76c08d79b7d52 3ee9f9	no	6
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16	NPL Documents	Savageau_Biochemical_Systems_1969_.pdf	1785565 b09a7edf86138f1dMe1724aab5421f208 c900	no	10
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17	NPL Documents	Schilling_The-Underlying-Pathway-Structure.pdf	3298170 c1eb0baeb66f9445d9428db22241a720ee 93ac	no	6
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18	NPL Documents	85-Schilling_Combining-pathway-analysis_BiotechnolBioeng_2000-2001.pdf	1875192 d7b606000c528ca59ab49818fed8de1e3 e68d	no	21
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19	NPL Documents	84-Schilling_Toward-metabolic-phenomics_BiotechnolProg_1999.pdf	805678 771811c54b2b31c4082aef5a9f9829a70e 95ca	no	8
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20	NPL Documents	87-Segre_From-annotated-genomes_OMICS_2003.pdf	3578689 68e3c986d4182556de12c8281e13d2c1449573	no	16
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21	NPL Documents	88-Selkov_MPW_NucleicAcidsRes_1998.pdf	744683 d1900003c0b372c3a6de6f1c2bacc982c0c204e	no	3
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22	NPL Documents	Sun_Modeling_DNA_AnnConfCompMolBiol1998.pdf	3631721 007388954157e272b33ab8b5d7c54874eece25	no	37
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23	NPL Documents	SuppEPSearchRpt_EP04782168.pdf	258493 d0d1fab6fc97a8b0fbac95c59d5110140c2395e	no	1
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25	NPL Documents	Tomita_E_CELL_Software_Bioinformatics1999.pdf	2633120 26de377700be19407be07053d71d6004e7488e	no	13
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26	NPL Documents	Tomita_The_ECellProject_NewGenComput2000.pdf	3066204 01e4901d5cda7de5dc564327899470288eac3d0a8	no	10
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27	NPL Documents	Torres_Indirect_Optimization_BiotechnolBioeng1997.pdf	4527877 77b73a0b6d108895a64eab371e62b3cb31313e	no	15
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28	NPL Documents	Valdes_Metabolic-reconstruction-of-sulfur_BMC-Genomics_2003.pdf	3503492 8e11554019d0172e3470ba152b5dc1f25ce02	no	16
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29	NPL Documents	95-A-Vallino_Metabolic-flux-distribution_Biotechnol-Bioeng_1993.pdf	4306784 03d7236573288a1929ac03f6a2d8935e140a	no	14
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30	NPL Documents	99-A-BW-Varma_Metabolic-Capabilities_PART-I_J-Theor-Biol_1993.pdf	5361128 35a0bc3b4f02ad0083a798c9f1879c6b3cf0ba1	no	26
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31	NPL Documents	102-VarmaAndPalsson_Stoichiometric_flux-balance-models_ApplEnvironMicrobiol_1994.pdf	2295301 c96159b93c54f90222a2c3b8ac3f7ea8762c0ba6	no	8
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32	NPL Documents	104-VarnerAndRamkrishna_Mathematical-Models-of-Metabolic-Pathways_CurrOpinBiotechnol_1999.pdf	494381 6da130128b2a9b76d6ec7b7164368c7094c1	no	5
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33	NPL Documents	105-Voit_Optimization-in-Integrated-Biochemical-Systems_BiotechnolBioeng_1992.pdf	2201330 7a02c4e38ac6d491501762181291297c05f6c92	no	11
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34	NPL Documents	106-Wang_Cadmium-removal-by-a-new-strain_App-Environ-Microbiol_1997.pdf	1099064 d4b757e1333b61db57007b4995c3ec88241bb3b6	no	4
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35	NPL Documents	111-Xie_Energy-metabolism-and-ATP-balance_Biotechnol-Bioeng_1996.pdf	3117474 0a659972365c0587078452a098ce0454de77ba087	no	11
<b>Warnings:</b>					
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36	NPL Documents	113-Xie_Integrated-approaches-to-the-design_Trend-Biotechnol_1997.pdf	774685 657b456d1080008c4fa06001e1786620473da12	no	6
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37	NPL Documents	112-Xie_Material-Balance-Stud-II_Biotechnol-Bioeng_1996.pdf	3842777 98b3a3a8e02b5f1eaf0533c0bee0db485aee03c2	no	12
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38	NPL Documents	108-Xie_Stoichiometric-analysis-of-animal-cell-growth_Biotechnol-Bioeng_1994.pdf	3238708 6f52c14f7a284559807d3ed8b25c383abf5e90c	no	11
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39	NPL Documents	Yang_Metabolic_Flux_MetEng_1999.pdf	1606906 c0e5451b1c26b13f62b61672646d5df8755d417e	no	9
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40	NPL Documents	URL-Appendix-1-Flux-balance-analysis-primer.pdf	2388021 99c048f1388d31aac23188e261d8b18b7c1a1fd	no	11
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41	NPL Documents	url_ilog_products_cplex_GAMS_Brooke1998.pdf	12460628 e84e9840707de801c5227a7ae1b7846ab070ac	no	276
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Information:					
Total Files Size (in bytes):			109886614		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.					
<u>New Applications Under 35 U.S.C. 111</u>					
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.					
<u>National Stage of an International Application under 35 U.S.C. 371</u>					
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.					
<u>New International Application Filed with the USPTO as a Receiving Office</u>					
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					